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HEWLETT-PACKARD COMPANY  
Intellectual Property Administration  
P.O. Box 272400  
Fort Collins, CO 80527-2400

EXAMINER
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ABEDIN, SHANTO

ART UNIT	PAPER NUMBER
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2136

MAIL DATE	DELIVERY MODE
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07/09/2008

PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

# Office Action Summary

## Application No.

10/724,920

## Applicant(s)

LE-ROUZOU ET AL.

## Examiner

SHANTO M Z ABEDIN

## Art Unit

2136

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 03 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

## Status

- 1) ☒ Responsive to communication(s) filed on 28 April 2008.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

## Disposition of Claims

- 4) ☒ Claim(s) 1,2 and 4-21 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1,2 and 4-21 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

## Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 01 December 2003 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

## Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some \* c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

## Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO/SB-08)  
Paper No(s)/Mail Date \_\_\_\_\_
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date \_\_\_\_\_
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: \_\_\_\_\_

***DETAILED ACTION***

1. This is in response to the Appeal Brief submitted on 04/28/2008. Finality of the previous office action is withdrawn, and this action is made Non-Final. The examiner notes, upon further examination, new grounds of 35 USC 101 and 112 type rejections, and objections to the drawing are found, and presented in this office action.
2. Claims 1-2, 4-21 are currently pending in the application.
3. Claims 1-2, 4-21 have been rejected.

***Response to Arguments***

4. The applicant's arguments regarding the previous 35 USC 103 (a) type rejections are fully considered, and found persuasive, however, moot in view of new grounds of rejection presented in this office action.

***Drawings***

5. The drawings are objected to under 37 CFR 1.83(a). The drawings must show every feature of the invention specified in the claims. Therefore, limitations set forth by the claims, in particular claims 1-2,5-6,8,12,14-16 and 18-21, such as "conveying the trace to the computer system", "comparing the pseudo signature with the software trace", "a pseudo signature generation element operative to produce a software trace", "a signature table containing a plurality of virus signature", "pseudo signature is tagged or otherwise marked", "antivirus software is modified so as to react differently", "pseudo signature generation element operative to produce a software trace of the component, and an antivirus support source whereby the software trace may be conveyed, as a

virus pseudo-signature, to the computer system", "an antivirus update source having a reception element operative to receive software trace indicative of the presence, in a computer system, of a non-virus component, and dispatch element operative to convey virus signatures to a plurality of computer systems", etc. must be shown or the feature(s) canceled from the claim(s). No new matter should be entered.

Corrected drawing sheets in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. The figure or figure number of an amended drawing should not be labeled as "amended." If a drawing figure is to be canceled, the appropriate figure must be removed from the replacement sheet, and where necessary, the remaining figures must be renumbered and appropriate changes made to the brief description of the several views of the drawings for consistency. Additional replacement sheets may be necessary to show the renumbering of the remaining figures. Each drawing sheet submitted after the filing date of an application must be labeled in the top margin as either "Replacement Sheet" or "New Sheet" pursuant to 37 CFR 1.121(d). If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

### ***Claim Rejections - 35 USC § 112***

The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

6. Claims 1-21 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the enablement requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to enable one skilled in the art to which it pertains, or with which it is most nearly connected, to make and/or use the invention.

*Regarding claims 1, 11-12, 14-18 and 21*, they recite the limitations such as “identifying a software trace ... as virus pseudo signature”, and “produce a software trace... as a virus pseudo-signature”, however, NOWHERE in the specification, an example, or an exact implementation or appearance of such “software trace” or “virus pseudo signature” is shown!

Specification merely describes such virus pseudo signature (see Par 0007-0008, 0026 and 0029) as “the trace to the computer system as a virus pseudo-signature ... signature that has the appearance and/ or traits of genuine signature but which in fact, is not indicative of the presence of a virus but rather of a non-virus component ...trace may be conveyed to the computer system as a part of the update procedure”, and defines such trace as pseudo virus signature (see Par 0007) or pseudo code or software (see Par 0029)

However, at the time of invention, one skilled in the art would not know exactly what the similarity or distinction among a trace, a genuine virus signature, and a virus pseudo signature, or one skilled in the art would not know how to implement such trace, or virus pseudo signature, or least one skilled in the art would not know how such trace, or pseudo signature may look like or appear!

Furthermore, according to the specification (Par 0007), the term “virus pseudo-signature” is intended to refer to a signature that has the appearance and/ or traits of a genuine virus signature but which, in fact, is not indicative of the presence of a virus. Therefore, pseudo signature has the appearance and/or traits of a genuine virus. However, specification fails to define pseudo signature any further – is pseudo signatures defined exactly like the genuine signatures? Can a genuine signature also be interpreted as a pseudo signature? What type of genuine signatures the applicant is referring to? Can a genuine signature that is loaded/ conveyed to a non-virus or non-infected computer also be interpreted as a pseudo signature?

Therefore, there is no specific example, definition, or appearance of such “trace ...as pseudo signature”, or “pseudo signature” is given, and at the time of invention, one skilled in art would not be able to design or implement such trace, or pseudo-signature, or even some cases, one skilled in the art would not know what type of specific virus signature the applicant is referring to.

***Regarding claims 2, 4-6, 7-10, 13 and 19-20***, they are rejected under 35 USC 112 first paragraph because of their dependencies on the rejected claims.

***Claim Rejections - 35 USC § 101***

35 U.S.C. 101 reads as follows:

Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

7. Claims 15-16 and 21 are rejected under 35 U.S.C. 101 since the claimed invention is directed to non-statutory subject matter.

**Regarding claim 15**, it is directed to an antivirus update system, however, claim languages fail to disclose any computer structure or hardware as a part of such system. Claim language does recite a non-virus hardware component, but not as a part of the antivirus update system, rather as a part of another system that in communication with the claimed system.

According to the specification (Fig 1; Par 0029) claimed antivirus update system is a support website, or part of an antivirus software. Therefore, claimed elements such as “a reception element” or “a dispatch element” are not hardware elements, rather can be implemented in software alone as a part of the website interfaces or component, and therefore, being non-statutory. See MPEP 2106.01

**Regarding claim 16**, it is rejected applying as above applied rejecting claim 15, furthermore, actual claimed features of claim 16 fail to add any hardware or computer component in the claimed system. Features described in claim 16, such as antivirus software element, and virus scanning engine and signature table, and pseudo signature generation element can be implemented in software only, and seemingly part of a update website or antivirus application, and therefore, being non-statutory. See MPEP 2106.01

**Regarding claim 21**, it is directed to a system comprising means for functions, however, claim languages fail to disclose any computer structure or hardware as a part of such system, or means. According to the specification, means are identifying a software trace, and conveying the software trace are antivirus software/ application, and/or support website that can be implemented in software only, therefore, being non-statutory. See MPEP 2106.01

***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

8. Claims 1, 2, 4-7, 10, 12, 14 and 17-21 are rejected under 35 USC 103 (a) as being unpatentable over Kephart et al (US 5675711; hereinafter Kephart et al' 711) in view of Kephart et al (US 6016546; hereinafter Kephart' 546)

***Regarding claim 1, Kephart et al'711*** teaches a method of detecting a non-virus component in a virus protected computer system having antivirus software comprising:

identifying a software trace ( detecting bootstrap code, or recognizing executable programs C, or detecting pseudo non-viral test vectors or pseudo legitimate test vector, or an antivirus detection program; Col 8, lines 47-67; Col 10, lines 16 -59) of the non-virus component (of non viral boot sector of a hard drive; of pseudo non-viral boot sector; of components that are classified as non-viral; antivirus program for detecting non-viral component or boot sector of a hard drive; Col 8, lines 56-67; Col 10, lines 15-59); and

conveying the trace to the computer system as a virus pseudo-signature (loading bootstrap code, or executable program C, or a component of the antivirus software as test patterns, pseudo non-viral test vectors or pseudo legitimate test vector; Col 8, starts at line 51; Col 10, lines 15-49) to allow detection of the non virus component (features, non viral boot sector of a hard drive; of



pseudo non-viral boot sector or components that are classified as non-viral; Col 1, starts at line 29; Col 8, lines 56-67; Col 10, lines 15-59) by the system's antivirus software (antivirus program for detecting non-viral component or boot sector of a hard drive; Col 10, lines 55-60),

wherein the component is a hardware device (boot sector of a hard drive, memory, disc; Col 8, line 47-67) and wherein the software trace is indicative of the presence of the hardware device in the computer system (program, or code, or pseudo test vectors or boot sector associated with the non-viral component, or memory; Col 8, lines 56-67; Col 10, lines 15-59)

Although Kephart et al'711 teaches executable program C, or test code or vectors to be different from an actual virus signature, Kephart et al'711 discloses features/ patterns or executable program C, or test code or vectors that are virus like, or pseudo non-viral (Col 1, lines 29-35; Col 8, lines 50-67; Col 10, lines 15-46) and associated with a non-viral component or memory sector (Col 8, lines 50-67; Col 10, lines 15-46.) Therefore, the examiner interpreted these features/ patterns, or pseudo test vectors as pseudo-signature since according to the specification a pseudo-signature has same appearance of/ like a signature of a virus.

However, alternatively, Kephart et al'546 discloses generic features/ pattern/ machine code/ traits having appearance of virus signature (Please see Col 1, lines 15-54; Col, 2, lines 25-65; Col 4, lines 14-60; patterns, machine code indicative of virus signature)

Kephart et al'546 and Kephart et al'711 are analogous art because they are from the same field of endeavor of antivirus mechanism. Therefore, at the time of invention it would have been further obvious to a person of ordinary skill in the art to combine the teachings of Kephart et

al'546 with Kephart et al'711 to design a virus pseudo-signature similar to the features/ pattern/ pseudo test vectors in order to provide an alternative automotive and robust component classifier.

*Regarding claim 2*, it is rejected applying as same motivation and rationale applied above rejecting claim 1, furthermore, Kephart' 546 teaches a method wherein the trace is conveyed to the computer system (loading signatures, codes or traits or patterns as a part of computer virus application or anti-virus product; Col 1, line 49 to Col 2, line 42), whereby additional virus signatures or scanning engine may also be passed to the antivirus software (loading one or more virus signatures or patterns or traits; antivirus product/ application; Col 1, lines 16-56; Col 2, lines 25-42)

Modified Kephart'546-Kephart'711 system fails to disclose performing the above as part of an update procedure. However, the examiner takes an official notice on that at the time of invention, loading updated antivirus software, or virus signature during an antivirus software update process was well known in the art. Therefore, at the time of invention, it would have been obvious to a person of ordinary skill in art to convey the software trace, or pseudo signature/ features to the computer system in order to remotely detect a virus or non-virus component with a new feature or signature.

*Regarding claim 4*, Kephart' 711 teaches a method wherein the software trace is resident in a volatile area of system memory (Col 8, starts at line 48; Col 10, lines 15-40; bootstrap code, or non-viral boot sector of a system memory or hard drive)

***Regarding claim 5***, it is rejected applying as same motivation and rationale applied above rejecting claim 1, furthermore, Kephart' 546 teaches wherein the pseudo-signature is tagged or otherwise marked to distinguish it from authentic virus signature (scanning for keywords or specific traits in generic features that is interpreted as pseudo signature; identifying subset of generic features from the actual signatures; Col 2, lines 25-40; Col 4, lines 23-65)

***Regarding claim 6***, it is rejected applying as same motivation and rationale applied above rejecting claim 1, furthermore, Kephart et al' 546 teaches wherein antivirus software is modified so as to react differently to the presence of pseudo and authentic virus signatures (antivirus software or scanner taking different action based on identifying a virus signature, or a generic feature that does not match any exact virus signature; Col 1, line 49- Col 2, line 40; Col 4, lines 15-60)

***Regarding claim 7***, it is rejected applying as same motivation and rationale applied above rejecting claims 1-2, furthermore, Kephart et al' 546 teaches wherein the modification is effected as a part of antivirus application procedure (loading one or more virus signatures or patterns or traits as a part of antivirus product/ application; Col 1, lines 16-56; Col 2, lines 25-42; antivirus software or scanner taking different action based on identifying a virus signature, or a generic feature that does not match any exact virus signature)

Modified Kephart et al' 546-Kephart et al '711 system fails to disclose an update procedure. However, the examiner takes an official notice on that at the time of invention, loading updated

antivirus software, or virus signature during an antivirus software update process was well known in the art.

*Regarding claim 10*, it is rejected applying as same motivation and rationale applied above rejecting claims 1-2 and 6, furthermore, Kephart' 711 teaches detection of the pseudo-signature effects providing details of the component concerned (Col 8, starts at line 48; Col 10, starts at line 20; detecting pseudo codes associated with the specific hard drive, or boot sector)

Modified Kephart et al '546-Kephart et al'711 system fails to disclose connecting to a website. However, the examiner takes an official notice on that at the time of invention, using/ connecting to a remote server/ website for managing a particular component specific antivirus software was well known in the art.

*Regarding claim 12*, Kephart et al'711 discloses a method of detecting , in a virus protected computer system, the presence of a non-virus component comprising:

receiving a virus pseudo signature associated with a software trace (loading bootstrap code, or executable program C, or a component of the antivirus software as test patterns, pseudo non-viral test vectors or pseudo legitimate test vector; Col 8, starts at line 51; Col 10, lines 15-49) of the non-virus component (of non viral boot sector of a hard drive; of pseudo non-viral boot sector; of components that are classified as non-viral; antivirus program for detecting non-viral component or boot sector of a hard drive; Col 8, lines 56-67; Col 10, lines 15-59), and

comparing the pseudo signature with software traces disposed within the system's memory (comparing, classifying pattern or pseudo test vectors with the bootstrap code, or executable programs known to be non viral that were initially loaded into the system memory) ,

wherein the component is a hardware device (boot sector of a hard drive, memory, disc; Col 8, line 47-67)and wherein the software trace is indicative of the presence of the hardware device in the computer system (program, or code , or pseudo test vectors or boot sector associated with the non-viral component, or memory; Col 8, lines 56-67; Col 10, lines 15-59)

Although Kephart et al'711 teaches executable program C, or test code or vectors to be different from an actual virus signature, Kephart et al'711 discloses features/ patterns or executable program C, or test code or vectors that are virus like, or pseudo non-viral (Col 1, lines 29-35; Col 8, lines 50-67; Col 10, lines 15-46) and associated with a non-viral component or memory sector (Col 8, lines 50-67; Col 10, lines 15-46.) The examiner interpreted these features/ patterns, or pseudo test vectors as pseudo-signature since according to the specification a pseudo-signature has same appearance of/ like a signature of a virus.

However, Kephart et al'546 discloses generic features/ pattern/ machine code/ traits having appearance of virus signature (Please see Col 1, lines 15-54; Col, 2, lines 25-65; Col 4, lines 14-60; patterns or generic features indicative of virus signatures). Kephart et al'546 further discloses receiving a virus pseudo signature associated with a software trace (Col 1, lines 15-54; Col 4, lines 14-60; patterns or generic features associated with the machine code indicative of virus signatures ), and comparing the pseudo signature with software traces disposed within the system's memory

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(matching patterns/ generic features with the actual virus signatures; Col 1, lines 15-54; Col, 2, lines 25-65)

Kephart et al'546 and Kephart et al'711 are analogous art because they are from the same field of endeavor of antivirus mechanism. Therefore, at the time of invention it would have been further obvious to a person of ordinary skill in the art to combine the teachings of Kephart et al'546 with Kephart et al'711 to design a virus pseudo-signature similar to the features/ pattern/ pseudo test vectors in order to provide an alternative automotive and robust component classifier.

***Regarding claim 14, Kephart et al'711 discloses an apparatus for detecting in a virus protected computer system, a non-virus component, comprising:***

a pseudo signature generation element operative to produce a software trace (antivirus program, or generic virus detector, or classifier operative to produce bootstrap/ executable software/ code, and pseudo test vectors or test codes/ features; Col 3, lines 24-55; Col 8, lines 48-67; Col 10, lines 14-59) of the non virus component (of non viral boot sector of a hard drive; of pseudo non-viral boot sector; of components that are classified as non-viral; antivirus program for detecting non-viral component or boot sector of a hard drive; Col 8, lines 56-67; Col 10, lines 15-59), and

an antivirus support source (antivirus program/ application; Col 10, lines 55-60),

whereby the software trace may be conveyed as a virus pseudo signature, to the computer system (loading bootstrap code, or executable program C, or a component of the antivirus software

as test patterns, pseudo non-viral test vectors or pseudo legitimate test vector; Col 8, starts at line 51; Col 10, lines 15-49),

wherein the component is a hardware device (boot sector of a hard drive, memory, disc; Col 8, line 47-67) and wherein the software trace is indicative of the presence of the hardware device in the computer system (program, or code, or pseudo test vectors or boot sector associated with the non-viral component, or memory; Col 8, lines 56-67; Col 10, lines 15-59)

Although Kephart et al'711 teaches executable program C, or test code or vectors to be different from an actual virus signature, Kephart et al'711 discloses features/ patterns or executable program C, or test code or vectors that are virus like, or pseudo non-viral (Col 1, lines 29-35; Col 8, lines 50-67; Col 10, lines 15-46) and associated with a non-viral component or memory sector (Col 8, lines 50-67; Col 10, lines 15-46.) The examiner interpreted these features/ patterns, or pseudo test vectors as pseudo-signature since according to the specification a pseudo-signature has same appearance of/ like a signature of a virus.

Furthermore, Kephart et al'546 discloses generic features/ pattern/ machine code/ traits having appearance of virus signature (Please see Col 1, lines 15-54; Col 2, lines 25-65; Col 4, lines 14-60; patterns, machine code indicative of virus signature)

Kephart et al'546 and Kephart et al'711 are analogous art because they are from the same field of endeavor of antivirus mechanism. Therefore, at the time of invention it would have been further obvious to a person of ordinary skill in the art to combine the teachings of Kephart et

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al'546 with Kephart et al'711 to design a virus pseudo-signature similar to the features/ pattern/ pseudo test vectors in order to provide an alternative automotive and robust component classifier.

*Regarding claims 17-21*, they recite the limitations of claims 1,5-6 and 12, therefore, they are rejected applying as above applied rejecting claims 1, 5-6 and 12.

9 Claims 11, 13 and 15 are rejected under 35 USC 103 (a) as being unpatentable over Kephart et al (US 5675711; hereinafter Kephart et al' 711) in view of Kephart et al (US 6016546; hereinafter Kephart' 546) further in view of Hypponen et al (US 6577920 B1)

*Regarding claim 11*, Kephart et al'711 discloses a method of facilitating the detection of a non virus component in a first virus protected computer system comprising:

identifying, a software trace (detecting bootstrap code, or recognizing executable programs C, or detecting pseudo non-viral test vectors or pseudo legitimate test vector, or an antivirus detection program; Col 8, lines 47-67; Col 10, lines 16 -59) of the non-virus component (of non viral boot sector of a hard drive; of pseudo non-viral boot sector; of components that are classified as non-viral; antivirus program for detecting non-viral component or boot sector of a hard drive; Col 8, lines 56-67; Col 10, lines 15-59),

conveying the trace towards an antivirus source (Col 10, lines 55-60; part of a antivirus program), whereby the software trace may be passed as a virus pseudo signature, to the first computer system (loading bootstrap code, or executable program C, or a component of the antivirus



software as test patterns, pseudo non-viral test vectors or pseudo legitimate test vector; Col 8, starts at line 51; Col 10, lines 15-49)

wherein the component is a hardware device (boot sector of a hard drive, memory, disc; Col 8, line 47-67) and wherein the software trace is indicative of the presence of the hardware device in the computer system (program, or code, or pseudo test vectors or boot sector associated with the non-viral component, or memory; Col 8, lines 56-67; Col 10, lines 15-59)

Kephart et al'711 teaches detecting and loading of features or executable program or test code or vectors that are virus like, or pseudo non-viral code (Col 1, lines 29-35; Col 8, lines 50-67; Col 10, lines 15-46) and associated with a non-viral component or memory sector (Col 8, lines 50-67; Col 10, lines 15-46.) However, Kephart et al'546 discloses identifying generic features/ pattern/ machine code/ traits reflective of actual virus signature that is associated with/ stored in a viral or non-viral storage component or hard drive (Please see Col 1, lines 15-25, 50-54; Col 2, lines 25-30, 55-65; Col 4, lines 14-60)

Therefore, at the time of invention, it would have been obvious to a person of ordinary skill in art to combine the teaching of Kephart' 546 with Kephart' 711 to design a virus pseudo-signature similar to the features/ pattern/ pseudo test vectors in order to provide an alternative automotive and robust component classifier.

Modified Kephart'546-Kephart'711 method fails to disclose identifying, on a second computer system; and an antivirus update source.

However, Hypponen et al discloses identifying, on a second computer system, a software trace of the non-virus component (identifying/ detecting signature of a virus free macro or file; Col 2, lines 25-60) ; and conveying the software trace toward an antivirus update source ( Col 5, starts at line 15; network antivirus update source)

Hypponen et al , Kephart et al'546 and Kephart et al'711 are analogous art because they are from the same field of endeavor of antivirus mechanism. Therefore, at the time of invention it would have been further obvious to a person of ordinary skill in the art to combine the teachings of Hypponen et al with modified Kephart et al'546-Kephart et al'711 to design a method further comprising identifying, on a second computer system, a software trace of the non-virus component, and conveying the software trace toward an antivirus update source in order to provide an alternative antivirus software mechanism from remote source.

***Regarding claim 13,*** it is rejected applying as same motivation and rationale applied rejecting claims 11 and 12, furthermore, Hypponen et al discloses a method wherein, in the event of a match being found, the antivirus software of the system is operative to convey, to a user of the system, an advisory message advising of the presence of the detected non-virus component (Col 5, lines 32- Col 6, line 34; reporting detection of the signature corresponding to the virus free macros/ files).

*Regarding claim 15*, it recites the limitations already addressed in rejecting claims 11 and 12, therefore, it is rejected applying as above applied rejecting claims 11 and 12.

### ***Conclusion***

10. Examiner's note: Examiner has cited particular columns and line numbers in the references as applied to the claims above for the convenience of the applicant. Although the specified citations are representative of the teachings in the art and are applied to the specific limitations within the individual claim, other passages and figures may be applied as well. It is respectfully requested from the applicant, in preparing the responses, to fully consider the references in entirety as potentially teaching all or part of the claimed invention as well as the context of the passage as taught by the prior art or disclosed by the Examiner.

11. A shortened statutory period for response to this action is set to expire in 3 (Three) months and 0 (Zero) days from the mailing date of this letter. Failure to respond within the period for response will result in ABANDONMENT of the application (see 35 U.S.C 133, M.P.E.P 710.02(b)).

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Shanto M Abedin whose telephone number is 571-272-3551. The examiner can normally be reached on M-F from 9:00 AM to 5:30 PM. If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Moazzami Nasser, can be reached on 571-272-4195. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications

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may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Shanto M Z Abedin

Examiner, AU 2136

/Nasser G Moazzami/

Supervisory Patent Examiner, Art Unit 2136